<u>In the Specification</u>:

• <u>Please amend the paragraph on page 10, line 25 through page 11, line 2, as follows</u>:

Modem 104 may include a difference generator 420 configured to calculate a difference based on the first and second levels. Difference generator 420 (or any suitable processing element of modem 104), during task 508, may be further configured to multiply the first transmission level by 2^M to thereby obtain a scaled level associated with the first level. A task 510 is preferably performed to generate the difference between the scaled transmission level and the second transmission level.

• <u>Please amend the paragraph on page 3, lines 11-26, as follows</u>:

A more complete understanding of the present invention may be derived by referring to the detailed description and claims when considered in connection with the Figures, where like reference numbers refer to similar elements throughout the Figures, and:

FIG. 1 is a schematic representation of a typical prior art modem system arrangement in which the techniques of the present invention may be implemented;

FIG. 2 is a detailed schematic representation of the modem system arrangement shown in FIG. 1;

FIG. 3 is a flow diagram of an exemplary initialization process that may be performed by a modem system;

FIG. 4 is a schematic representation of an exemplary receive modem;

FIG. 5 is a flow diagram of an exemplary codec type detection process that may be performed by the receive modem shown in **FIG. 4**;

FIG. 6 is a <u>prior art</u> table of PCM transmission levels as set forth in ITU-T Recommendation V.90;

FIG. 7 is a <u>prior art</u> table of positive A-law levels as set forth in ITU-T Recommendation G.711; and

FIG. 8 is a <u>prior art</u> table of indices corresponding to a -law to A-law conversion scheme as set forth in ITU-T Recommendation G.711.

• <u>Please amend the paragraph on page 1, lines 9-10, as follows</u>

This application is a continuation of United States application serial number 10/060,152, filed January 30, 2002<u>, now U.S. Patent No. 6,614,839 issued September 2, 2003</u>, which is a continuation of United States application serial number 09/164,155, filed September 30, 1998<u>, now U.S. Patent No. 6,381, 266 issued April 30, 2002.</u>

List of Claims:

Claims 1-19 (canceled)

Claim 20 (new): A method for use by a first modem for identifying an encoding type associated with a central office, said first modem being in communication with a second modem via said central office, said method comprising:

receiving a digital impairment learning signal from said second modem via said central office;

obtaining a plurality of transmission levels from said digital impairment learning signal;

selecting a first transmission level from said plurality of transmission levels;

selecting a second transmission level from said plurality of transmission levels;

performing an analysis based on said first transmission level and said second transmission level; and

determining said encoding type as a result of said performing said analysis.

Claim 21 (new): The method of claim 20, wherein said analysis includes:

scaling said first transmission level to generate a first scaled level; and

comparing said first scaled level and said second transmission level.

Claim 22 (new): The method of claim 21, wherein said scaling includes multiplying said first transmission level by a scale value to generate said first scaled level.

Claim 23 (new): The method of claim 22, wherein said first transmission level is designated by a first index and said second transmission level is designated by a second index greater than said first index by an integer M, and wherein said scale value is two to the power of said integer M.

Claim 24 (new): The method of claim 23, wherein said first transmission level is further designated by a first subindex and said second transmission level is further designated by a second subindex, and wherein said first subindex is equal to said second subindex.

Claim 25 (new): The method of claim 24, wherein said analysis further includes calculating a difference between said first scaled level and said second transmission level and said comparing includes comparing said difference with a threshold value.

Claim 26: The method of claim 25, wherein said encoding type is A-law if said difference is less than or equal to said threshold value and said encoding type is μ-law if said difference is greater than said threshold value.

Claim 27 (new): A first modem capable of identifying an encoding type associated with a central office, said first modem being in communication with a second modem via said central office, said first modem comprising:

a receiver configured to receive a digital impairment learning signal from said second modem via said central office; and

a processor configured to obtain a plurality of transmission levels from said digital impairment learning signal, select a first transmission level from said plurality of transmission levels, select a second transmission level from said plurality of transmission levels, perform an analysis based on said first transmission level and said second transmission level, and determine said encoding type as a result of said analysis.

Claim 28 (new): The first modem of claim 27, wherein said analysis by said processor includes scaling said first transmission level to generate a first scaled level, and comparing said first scaled level and said second transmission level.

Claim 29 (new): The first modem of claim 28, wherein said scaling includes multiplying said first transmission level by a scale value to generate said first scaled level.

Claim 30 (new): The first modem of claim 29, wherein said first transmission level is designated by a first index and said second transmission level is designated by a second index greater than said first index by an integer M, and wherein said scale value is two to the power of said integer M.

Claim 31 (new): The first modem of claim 30, wherein said first transmission level is further designated by a first subindex and said second transmission level is further designated by a second subindex, and wherein said first subindex is equal to said second subindex.

Claim 32 (new): The first modem of claim 31, wherein said analysis by said processor further includes calculating a difference between said first scaled level and said second transmission level and said comparing includes comparing said difference with a threshold value.

Claim 33 (new): The first modem of claim 32, wherein said encoding type is A-law if said difference is less than or equal to said threshold value and said encoding type is μ-law if said difference is greater than said threshold value.

Claim 34 (new): A computer software product for use by a first modem for identifying an encoding type associated with a central office, said first modem being in communication with a second modem via said central office, said computer software product comprising:

code for receiving a digital impairment learning signal from said second modem via said central office;

code for obtaining a plurality of transmission levels from said digital impairment learning signal;

code for selecting a first transmission level from said plurality of transmission levels;

code for selecting a second transmission level from said plurality of transmission levels;

code for performing an analysis based on said first transmission level and said second transmission level; and

code for determining said encoding type as a result of said analysis.

Claim 35 (new): The computer software product of claim 34, wherein said analysis includes:

code for scaling said first transmission level to generate a first scaled level; and

code for comparing said first scaled level and said second transmission level.

Claim 36 (new): The computer software product of claim 35, wherein said scaling includes multiplying said first transmission level by a scale value to generate said first scaled level.

Claim 37 (new): The computer software product of claim 36, wherein said first transmission level is designated by a first index and said second transmission level is designated by a second index greater than said first index by an integer M, and wherein said scale value is two to the power of said integer M.

Claim 38 (new): The computer software product of claim 37, wherein said first transmission level is further designated by a first subindex and said second transmission level is further designated by a second subindex, and wherein said first subindex is equal to said second subindex.

Claim 39 (new): The computer software product of claim 38, wherein said analysis

further includes calculating a difference between said first scaled level and said second

transmission level and said comparing includes comparing said difference with a threshold value.

Claim 40: The computer software product of claim 39, wherein said encoding type is A-

law if said difference is less than or equal to said threshold value and said encoding type is μ-law

if said difference is greater than said threshold value.

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